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Original Communications.

RÖTHELN—GERMAN MEASLES.

Read before the Roxbury Medical Club, March 26th, 1873.

By B. E. COTTING, M.D. Harv.

In the latter part of the winter, and through the spring months of 1871, an exanthematous disease, in most instances of no very great severity, prevailed in some parts of Roxbury; to such an extent, however, as to cause abundant local popular gossip, as well as frequent professional remark. It was occasionally attributed to improper diet, but cases subsequently occurring in the same households soon refuted the unfounded assumption. It was not always recognized at first as a distinct affection by medical attendants, nor, when so recognized, easily assigned to a satisfactory place in classification or nomenclature. One of our number, however (Dr. A. H. Nichols), happily hit upon a name which was readily accepted by the laity, and which answers well enough for all practical purposes, and for distinguishing the disease from others with which it is liable to be confounded. The name, thus originating with us, was "German Measles,"—a name which was also used by a writer in the *Edinburgh Medical Journal* for May, 1872, a year or more later.

Although a year seldom passes without the occurrence of some sufficiently well marked cases, yet the number of families invaded in the early part of 1871, and the number of individuals sometimes then attacked in detached houses, caused frequent inquiry whether this affection with a foreign appellation was in reality a new importation, or whether any such disease had ever been heard of before in this vicinity. I was thus led to hunt up a paper which I prepared for the Norfolk (Mass.) District Medical Society in September, 1853, and which I will now give as then read to that Society. The paper was entitled Røtheln, and is as follows:—

During the year 1852, scarlet fever existed in Roxbury to a moderate extent—no single month being without its cases. In the early part of the present year, 1853, the disease increased, and became most frequent in the latter part of February and in March. After this time, there were fewer cases, though it cannot be said to have yet (Sept., 1853) entirely disappeared.

During a part of the past summer, the measles prevailed—at times

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so extensively as to depopulate many of the primary schools. Of late, but little has been heard of this disease.

In the latter part of the spring and quite into the summer, another and probably quite a different disease became also prevalent. It appeared as the scarlet fever declined, or about the first of April, and was quite common before the measles had reached the greatest frequency. While in some cases it greatly resembled the measles, and was called so, in others it appeared more like scarlet fever, and received that appellation. It seemed to be more directly connected with scarlet fever, and to have followed more immediately in its wake than in that of the measles. It was particularly marked in those who had previously had both scarlet fever and measles; and indiscriminately attacked both adults and children. So far as could be ascertained, it offered no protection against either of these diseases. Though at first, in many instances, resembling measles, the disease would most often, in its earlier stages, appear like scarlet fever. Frequently it would suddenly change and seem to be measles; again it would exhibit appearances dissimilar to both. Persons familiar with scarlet fever and measles were puzzled in their estimate of this disease. And the frequent rumors of cases of a "double disease" (of both scarlet fever and measles at the same instant, in the same individual, who may have had both of these diseases previously), indicated an unsolved mystery or an unusual anomaly.

As for differential diagnosis, our limited observations have not enabled us to point out any one feature so universally constant as to indisputably mark the disease. This is especially referable to the earlier stages—the history and progress of the attack leaving less doubt as it advanced. Nevertheless the incursion differed from scarlet fever in the less severity and amount of throat disturbances; and from measles in the slight degree or entire absence of catarrhal symptoms. The rash appeared usually in spots or patches less extensive than scarlet fever; but, individually, larger and in less crescentic areas, than measles. After pressure, small dots or points appeared previous to the return of the uniform blush, as in scarlet fever. The eruption showed itself early, often within the first twenty-four hours of the attack—was more irregular in its forms, and came out more simultaneously on all parts of the body, than in scarlet fever or measles. The rash often disappeared without sensible desquamation of the cuticle—never in the large flakes sometimes observed after scarlet fever. The duration of the rash seldom reached that of scarlet fever or measles—usually not extending beyond the third day.

Under the different and ill-defined titles of Rubeola, Roseola, Rosalia, Rosalia spuria, Scarlatina hybrida, &c., various authors, both in works on diseases of the skin and in special treatises, have indicated the existence of cases such as we have described. Their descriptions, however, by no means exactly cover our observations, which seem rather to agree with some of the forms described at times by the Germans under the name of Rötheln. The *Edinburgh Journal*, in 1840, and the *British and Foreign Review*, in 1843, called attention to the subject; and Dr. Homans, Sen., gave an account of cases in his own practice in a paper read before the Boston Society for Medical Improvement in 1845. Whether the sketch we have now given relates to imperfect forms of scarlet fever or measles, a so-called "bastard" or hybrid, or

to what will prove to be a distinct disease, must be determined by the combined experience of future observers; but when we reflect that it is hardly more than half a century since the diagnosis between scarlet fever and measles was definitely decided and accepted, it will require no very great effort to admit the possibility of another disease intermediately between the two. At any rate, the present confusion is disagreeable and often embarrassing; and, what is of more consequence, may, through careless diagnosis, lead patients into unnecessary exposures by supposed previous protection.

The foregoing description of rōtheln as it appeared in this neighborhood about twenty years ago, would answer, so far as my own observations have extended, equally well for the same disease in 1871. In both instances it was epidemic, and attacked those who had previously had, as well as those who had not had, scarlet fever and measles. When one member of a family was seized, others generally were afterwards taken down; and in these cases there seemed to be an incubation of about three weeks—a longer time than usual with scarlet fever or measles.

In both these epidemics, and in scattered cases seen in the interval, the opinion, then based upon independent personal observations, has been strengthened and confirmed—that there is in these cases a specific disease, to be accepted as such, and to be distinguished from other affections most likely to be confounded with it.

Rōtheln is not a new disease (if in fact there are any such), but, whenever noticed, it has most frequently been treated of as a variety of some other affection. Though the term "rōtheln" has been in use, at intervals, for more than a century, descriptions under it as given from time to time, have been so mixed and so confused that they can seldom be referred to one and the same disease, and are often irreconcilable with each other. A short summary of what has been published, properly systematized, and relating unequivocally to the disease we have endeavored to describe, would be of great service.

In the first number of a new periodical, the *Révue des Sciences Médicales*, January, 1873, received here only a few days ago, and since the above was written, there is an analysis of an article by Prof. Thomas, of Leipsic, on an epidemic of rōtheln, as it prevailed in the city of Leipsic in 1872, which so remarkably confirms the observations made here in 1852, and since that time, that an abbreviated translation will form a fitting conclusion to the present paper. From cases in his own practice, Prof. Thomas concludes:—

Rōtheln is a specific contagious exanthem, which should be kept clearly distinguished from scarlet fever and measles.

The duration of the incubation of the disease varied from seventeen to twenty-two days. The eruption was often the initial phenomenon; and there was no constant prodromic stage observable. Frequently, the eruption appeared in children who had previously shown some catarrhal symptoms. Some had a slight injection of the conjunctiva and irregular redness of the soft palate and pharynx, with slight

difficulty of deglutition, generally of a temporary character. The injection of the palate followed the same changes as the eruption itself, and disappeared at the same time as the latter.

The eruption, in general not very abundant, appeared in spots, isolated, sometimes slightly curvilinear or elliptiform, most frequently of a bright red color, occupying all parts of the body. It was most abundant on the face, forehead, cheeks and chin; being frequently accompanied by slight œdema in these parts. Sometimes, the hairy scalp was invaded. Less confluent on the neck and trunk, it was even more discreet on the limbs—the thickness of the epidermis almost completely obscuring it on the soles of the feet and the palms of the hands. These spots were more rounded, less jagged, more maculated, less papular and less prominent than those frequently seen in the early eruption of measles; though there were cases where the similarity was so striking as to render distinction at first quite difficult.

The duration of the eruption was generally short—averaging three days; and desquamation was never observed by Prof. Thomas in his cases, which ranged from children of three years to an adult of thirty-five years of age.

Prof. Thomas insists particularly upon the distinctive thermic characteristics between *rötheln* and measles. In *rötheln* the thermic elevation, if any, shows its maximum on the appearance of the eruption, which in itself is very precocious; while regular measles may be distinguished by an initial fever preceding the eruption, and by having the greatest thermic elevation when the exanthem attains its height.

Roxbury, Boston, March, 1873.

ACUTE RHEUMATISM IN INFANTS.—In a very complete monograph on Rheumatism in Infants, founded on the very few documents that exist upon the subject, and numerous observations of his own, M. Picot finds that—

Contrary to the old-received opinion, rheumatism is a very common affection in children from seven years and upwards, and has been observed at as early an age as seven months.

The symptoms are generally less intense, and less prolonged than in adults, but relapses are more frequent in infants, as well as cardiac complications, even in milder cases, so as to be considered the rule. Sometimes, these cardiac complications depart without leaving any trace, but in others they end in organic changes which prove rapidly fatal. Pleurisy of the left side frequently follows cardiac symptoms. The nervous system is quite apt to be involved, and to present marked peculiarities. Thus cerebral rheumatism, so inclined to forms of delirium and meningitis, in infants more frequently becomes choraic. Chorea is often a manifestation of rheumatism; it follows, accompanies or, more rarely, precedes articular pains. It accompanies very often, but not always, cardiac affections. Chorea and an affection of the heart can exist at the same time in an infant, without any articular disturbance at all. Rheumatismal chorea seems to be one of the manifestations of the action of rheumatism on the nervous centres, and more particularly upon the spinal cord and its envelopes.

Visceral manifestations of rheumatism are more frequent in the young than in adults.—*Journal de Médecine et Chirurgie Pratiques.*

Clinical Lecture.

**BLOODY, WATERY, OR OTHER DISCHARGES FROM THE EARS, NOSE,
OR MOUTH, AS SIGNS OF FRACTURE OF THE
BASE OF THE SKULL.**

Part of a Clinical Lecture, delivered at the Massachusetts General Hospital,
by R. M. HODGES, M.D.

In addition to ecchymosis of the eyeball as a sign of fracture of the base of the skull (see this JOURNAL, April 17, 1873), ecchymosis of the retro-pharyngeal mucous membrane, attended by a difficulty in swallowing, is sometimes present. In the case which suggests these remarks, the severity of the injuries prevented a search for this symptom.

Fracture of the base of the skull may also be accompanied by certain discharges from the natural orifices of the face. Cerebral matter, blood, or a serous fluid, may escape in variable quantities, singly or simultaneously, from the nose, mouth or ears.

Cerebral matter, exuding from the nose or ears, can only be evidence of extensive and comminuted fracture, the existence of which would doubtless be demonstrated by other indications of equal, or even greater, distinctness.

A discharge of blood from the ear is of common occurrence, but was not noticed in the present instance. The symptom is of importance only when the hæmorrhage is abundant, continuing many hours, or several days, and a rupture of the membrana tympani is demonstrated. It may come from an extravasation within the cranium, or from a rupture of the vessels in the petrous portion of the temporal bone, and must follow a line of fracture through the walls of the tympanum, finding an exit through the ruptured membrana tympani into the external auditory canal. If the fracture lacerates the lateral sinus, or the carotid artery in the carotid canal, the hæmorrhage may prove fatal.

Bleeding from the ear attends so many injuries of the head, independent of fracture of the base, that its value as a symptom is much diminished. Wounds of the auditory canal, fracture of the mastoid process, or even simple rupture of the membrana tympani, may cause a very considerable loss of blood from the orifice of the ear.

For similar reasons, hæmorrhage from the nose, or the spitting and vomiting of blood, have but little significance. After a fracture through the petrous portion of the temporal bone, the tympanic membrane remaining intact, blood may reach the throat through the Eustachian tube. Hæmorrhage from both nose and ear has been observed, the Eustachian tube, as well as the ruptured tympanic membrane, furnishing outlets for its discharge.

After fracture of the base of the skull, a colorless and limpid fluid sometimes oozes from the ear or ears, or from the nose; and this may follow the accident at once, or be preceded by a flow of blood. In the patient so often alluded to it did not occur immediately after the injury. It was first noticed, at the end of twelve days, in the left ear, and a week later in the right. It was accompanied by deafness, lasted seventeen days, and was enough to soil the pillow and require absorption by handkerchiefs.

Of the frequent coëxistence of this symptom with fracture of the base of the skull, there can be no doubt. Although at present universally recognized, it was only first described in 1839. Of the source of the fluid there has been, if there is not still, a very great degree of doubt.

It has been thought to be the serum of blood effused within the cranial cavity, weeping out through a fissure in the temporal bone, after the manner already described for the escape of blood. It has also been supposed to come from the labyrinth of the ear, and to be the liquor Cotunnii. Apart from the fact that the latter fluid exists naturally in very small quantity, and is secreted from a surface of limited area, the best refutation of this supposition is its failure to account for the discharge when it comes from other apertures, as the nose and mouth. A third theory, that it is the cerebro-spinal fluid, is supported by the nature of the anatomical lesions, and by chemical analysis. It contains a very small quantity of albumen and twice the amount of chloride of sodium which is found in the serum of the blood.

That the cerebro-spinal fluid should escape by the ear, there ought to be a fracture into the cavity of the drum, a rupture of the arachnoid and a laceration of the membrana tympani. The flow generally lasts from four to seven days, and exudes at the rate of about one drachm per hour. The conditions above named have been found in many autopsies of patients who, during life, presented this symptom. But other cases have been noticed where, although they were all present, no flow of fluid took place from the ear; and, still further, in a case which furnished sixty-three ounces in one hundred and six hours, on *post-mortem* examination, six years after, no vestige of fracture was found. There was a cicatrix of the membrana tympani, and the traces of an old inflammation of the drum. In another instance, for six days before death, the leakage was such that more than two ounces of fluid were collected in an hour, and yet a careful examination could find no communication between the middle and internal ear. The mucous membrane of the drum, and of the mastoid cells, was much injected, and the membrana tympani largely torn. Cases, also, have been reported where, without rupture of the membrana tympani, or any fracture of the petrous bone, a large flow of serous fluid has followed hæmorrhage from the external ear consequent upon perforation of the external auditory canal by a fracture of the neck of the inferior maxillary bone.

These and similar facts show that this symptom, considered by itself, is not pathognomonic of fracture of the petrous portion of the temporal bone. It has, nevertheless, an important significance, dependent, largely, perhaps, on the intelligence with which the circumstances of its appearance are appreciated.

These vary, and may be (1) a serous flow from the ear, soon after the accident, preceded by a slight or even no hæmorrhage; or (2), an abundant hæmorrhage from the beginning, giving place, after several hours, to an escape of watery fluid; or (3), a hæmorrhage, unmistakable, but of short duration, and, sooner or later, succeeded by a serous discharge.

In the first case supposed, where the flow follows the accident promptly, is perfectly serous, abundant, increased by coughing, sneezing, or by position of the head, the existence of a fracture through

the petrous portion of the temporal bone might safely be asserted, and chemical analysis would doubtless confirm the diagnosis, by proving the fluid to be cerebro-spinal.

In the second case, where hæmorrhage precedes the serous oozing, and it has been copious and prolonged, a fracture may be inferred, but this inference is drawn from the character of the hæmorrhage, rather than the exudation of watery fluid.

In the third case, where, after a slight and brief hæmorrhage, a discharge from the ear comes on, varying in quantity and in nearness of date to the injury, the existence of a fracture through the petrous portion of the temporal bone cannot be inferred with any degree of confidence.

It is to this last category that the case of our present patient belongs. It differs only in the absence of preëxisting hæmorrhage, which may have escaped observation after the accident, owing to the gravity and the number of injuries. The watery discharge has lasted many days, and has been profuse; and, although taken alone, it would not justify the diagnosis of a fracture of the base of the skull, other symptoms, previously enumerated, ecchymosis of the eyeball, sluggish intellect, dilated pupil, deafness, headache, pain on moving the head, slow and irregular pulse, uphold the suspicion of this lesion, although its actual existence is incapable of being confirmed.*

The discharge of water from the nose, in connection with a fracture of the base of the skull, is much more rare than from the ear. It presents similar chemical and physical characters to that which comes from the latter orifice. After a violent injury to the head, it would authorize the inference that a fracture existed, probably of the sphenoid bone; unless, as in certain cases of hæmorrhage already mentioned, the fluid comes, by way of the Eustachian tube, from a fracture of the temporal bone in which the membrana tympani is unruptured.

Magendie has shown that the temporary withdrawal of the cerebro-spinal fluid is followed by rapidly produced cerebral disturbance; yet its escape in connection with fracture of the base of the skull has not been thought, by many observers, to influence the prognosis, which, always grave, is by no means so hopeless as was formerly supposed. Most museums contain specimens which prove a considerable duration of life after the infliction of this injury.

Occasionally, in fractures of the vault of the cranium, this same leakage of cerebro-spinal fluid takes place, and may be, in itself, a dangerous symptom. The operation of trephining for epilepsy was once undertaken in this hospital upon a patient with an apparent depression over the parietal bone, of long standing and traumatic origin. It was found that a loss of substance and thinning of the cranium alone existed. In clearing the spot at which the trephine was to be applied, a minute opening was made in the adherent cerebral membranes, and a profuse flow of cerebro-spinal fluid took place, followed almost immediately by frequent convulsions. Although the intended operation was not proceeded with, a fatal result occurred in seven days. The existence of this symptom in connection with any fracture of the skull ought, therefore, to be looked upon as an unfavorable cir-

* Dr. H. L. Shaw has had the kindness to examine this patient's ears, since the discharge has ceased, and states that the membrana tympani of the left ear is still perforated, while that of the right ear presents the apparent cicatrix of a recent laceration.

cumstance. The severity of the accompanying lesions, the probable effusion of blood within the cranium, and the injury to the brain itself are, however, of more value in forming a prognosis than the circumstances attending a loss of cerebro-spinal fluid.

The length of time which has elapsed since the accident, and the gradual improvement which has occurred, authorize the expectation of recovery in the case which has been under discussion.

Progress in Medicine.

REPORT ON DISEASES OF THE THROAT.*

By F. I. KNIGHT, M.D. Harv.

BOOKS AND MONOGRAPHS.

Traité Pratique des Maladies du Larynx et du Pharynx. Par le Docteur L. Mandl. Avec 7 planches gravées et coloriées, et 164 figures intercalées dans le texte. Paris: J. B. Baillière et Fils. 1872. Pp. 816.

Die Anwendung der Galvanokaustik im innern des Kehlkopfes und Schlundkopfes, sowie in der Mund- und Nasenhöhle und den Ohren, nebst einer Kurzen Anleitung zur Laryngoskopie und Rhinoskopie. Von Dr. Rudolph Voltolini, Professor an Universität zu Breslau. Zweite vollständig umgearbeitete Auflage. Wien. 1872. Braumüller. Pp. 317.

Die locale Behandlung der Krankheiten der Athmungsorgane. Lehrbuch der respiratorischen Therapie. Von Dr. L. Waldenburg, Prof. e. o. an der Königl Universität in Berlin. Zweite neu bearbeitete und stark vermehrte Auflage. Mit 12 Holzschnitten. Berlin. Verlag von Georg Reimer. 1872. Pp. 782.

Die Diptherie. Eine Monographie nach eignen Untersuchungen, und Beobachtungen von Dr. med. Ludwig Letzerich. Mit 2 lithographirten Tafeln. Berlin. 1872. Hirschwald. Pp. 33.

Samlung Klinischer Vorträge (Volkmann) No. 36. I. Ueber Laryngoskopie von C. Störk. II. Ueber Diagnose und Behandlung der Stimm- bandlähmung von C. Gerhart. Leipzig. Breitkopf und Härtel. 1872. Pp. 22.

Ueber Krebs der Speiseröhre. Inaugural Dissertation zur Erlangung der Doctorwürde in der Medicin und Chirurgie, &c. Von Max August Fritzsche. Berlin. 1872. H. E. Oliven. Pp. 93.

De la Thrombose Cardiaque dans la Diptherie. Par Robinson Beverly, Docteur en Médecine de la Faculté de Paris, Interne des Hôpitaux de Paris. Paris. 1872. Delahaye. Pp. 113.

Etudes Laryngoscopiques. Diagnostic des Paralysies motrices des Muscles du Larynx. Par le Dr. Emile Nicolas Duranty. Avec planches. Paris. 1872. J. B. Baillière et Fils. Pp. 47.

Contribution à l'Etude du Croup. Par le Dr. J. Callandreaux-Dufresse. Paris. 1873. Delahaye. Pp. 74.

Ueber ein neues gefahrloses Verfahren zur Entfernung von Kehlkopfgeschwülsten. Von Dr. Friedrich Fieber. Wien. 1872. Verlag von Karl Czermak. Pp. 20.

Die Gewinnung vergrößerter Kehlkopfspiegelbilder, nebst einer Kurzen Darstellung der Theorie der Kehlkopfspiegels. Von Dr. A.

* Second semi-annual Report.

Weil, Privatdocent, &c., in Heidelberg. Heidelberg. 1872. Bassermann. Pp. 36.

Mysteries of the Voice and Ear. By Prof. O. N. Rood, of Columbia College. University Series, No. 10. Chatfield & Co. New Haven, Conn. Pp. 41.

NARES.

(1.) Kurze Mittheilung über die Anwendung von Injectionen in den Nasencanal, nebst Beschreibung einer von mir dazu ausgegebenen Spritze, zugleich mit Berücksichtigung der Injectionen in den äusseren Gehörgang. Weigersheim. Ein Vortrag, Gehalten in der Gesellschaft für Heilkunde in Berlin. (Hierzu Abbildungen.) *Deutsche Klinik*, Dec. 7, 1872. [Nothing new.]

(2.) Naso-pharyngeal Polypus in a Girl of fifteen. *Lancet*, Oct. 19, 1872, p. 561. [Report of a case in the wards of Dr. Léon Labbé at La Pitié, Paris. The soft palate was slit up by the galvano-caustic knife, and the tumor removed by means of the galvano-caustic wire.]

(3.) Zur Operation der Nasenpolypen. Ed. Wimmer (Dresden). (*Archiv der Heilkunde*, 6 Heft, 1872.) (*Allgemeine Medicinische Central-Zeitung*, Dec. 18, 1872.)

(3.) Dr. WIMMER speaks of the rudeness of the ordinary operation for nasal polypi, and the insufficiency of the ordinary methods of illumination of the anterior nares. Seeking better illumination in a case where he had left a part of the polypi by the ordinary operation, he tried the common eye-speculum, as a nasal dilator, and, being enabled by the aid of it to use the hook and scalpel and double curved scissors in removing what was left, modified it a little to suit the nose better, and recommends the use of it with reflected light. The instrument of Dr. Norton Folsom, which we described in this JOURNAL of April 3d of the present year, and which was first described in the *New York Medical Gazette*, is essentially the same as the instrument mentioned above.

FAUCES.

(1.) Deligation of left common carotid artery for Hæmorrhage from Fauces. Robert Bernard, M.D. [Phagedenic Ulceration.] *Lancet*, June 22, 1872.

LARYNGOSCOPY.

(1.) Abstract of Lectures on the Use of the Laryngoscope. By Morell Mackenzie, M.D. *British Medical Journal*, Aug. 31, 1872, et seq.

(2.) Laryngoscop mit portativ Lampe; auch für jegliche Lampenform passend. Tobold. *Berliner Klinische Wochenschrift*, Sept. 30, 1872.

(3.) Laryngoskopie an Thieren. Dr. Georg Schmidt, aus St. Petersburg. *Berliner Klinische Wochenschrift*, No. 3, 1873.

(4.) Entgegnung. Von Dr. Tobold. Betrachtungen über den Tobold'schen nach dem "Dreilinsensystem" construirten Apparat. *Deutsches Archiv für Klinische Medicin*, 11 Bd. 2 Heft.

(3.) Dr. SCHMIDT is the first, as far as we are aware, to attempt laryngoscopy upon animals. His experiments were performed in the laboratory of Prof. Vierordt, at the latter's suggestion. The animal was appropriately secured by the means at his command in the laboratory, but narcotics were not employed. The cat proved herself to be the best animal for the experiments. She is so little disturbed by the whole proceeding, that if one exercises the necessary caution any

desirable laryngoscopic examination can be made, and the effects of artificially established disturbances, e. g. of section of single nerves or muscles of the larynx, can be readily studied. Whilst reserving the full report of his observations for a subsequent communication, Dr. S. gives the laryngoscopic appearances after section of one recurrent. Section of the right recurrent in the upper part of its courses, under the lower edge of the cricoid cartilage, was made without the slightest hæmorrhage. The laryngoscopic examination, made immediately, gave the following appearances: the right vocal cord and right arytenoid cartilage remained immovable during respiration and phonation, in a position intermediate between that of ordinary respiration and phonation. The apex of the arytenoid was turned outward, and the paralyzed vocal cord formed a much more obtuse angle with the arytenoid than was formed on the other side. The right vocal cord appeared somewhat shorter than the left, the right arytenoid standing farther forward, it no longer being drawn backward by the action of the right posterior crico-arytenoid muscle, that muscle being paralyzed. On phonation, there was no change in the position of the paralyzed vocal cord, but the left crossed the median line and was approximated to the right, but not so closely as in normal phonation. The rima glottidis was accordingly very narrow, but not linear in form, being a little broader posteriorly. The arytenoid cartilages touched each other completely. The glottis-chink received a peculiar bent form, inasmuch as a bend inward was formed in the place of the vocal process of the arytenoid cartilage on the healthy side, and a similar bend outward on the affected side. On the production of very weak tones, and especially during purring, the vibrations of the healthy vocal cord could be seen most clearly when mucus adhered to it. The paralyzed cord, on account of its want of tension, was not in condition to be set into even passive vibration. When moderate difficulty in respiration was produced by means of a string about the neck, there were continual vibrations of the healthy vocal cord, whilst both inspiration and expiration were accompanied by hoarseness.

Schmidt remarks, in conclusion, that, after section of the recurrent, the voice was a little hoarse, and somewhat deeper and weaker. The hoarseness, however, had diminished on the following day. The animal showed no noticeable disturbances in her general condition.

[The appearances in the larynx, given above, correspond exactly with what has been repeatedly observed in man, when one recurrent has been supposed to be paralyzed, but the effect on the pitch of the voice seems to have been different, it being reported lower, whereas, in case of complete paralysis of one vocal cord in man, a falsetto voice is ordinarily produced.—K.]

GROWTHS IN THE LARYNX AND TRACHEA.

(1.) Vorträge über Laryngoskopie. Friedrich Fieber. IV. Ueber ein neues gefahrloses Verfahren zur Entfernung von Kehlkopfgeschwülsten. *Allgemeine Wiener Medicinische Zeitung*, Aug. 27, Sept. 10, et seq., 1872.

(2.) Drei Operationen von Kehlkopfpolypen. Sommerbrodt. *Wiener Medicinische Presse*, xiii. Jahrgang, No. 26, 27.

(3.) Zur Kenntniss des Epithelioms der Schilddrüse. *Virchow's Archiv*, 1872. Lv. 254.

(4.) Two Cases of Thyrotomy for the removal of Growths from the Larynx. Thornton. Abstract of a paper read at the Clinical Society of London. *Medical Times and Gazette*, March 8, 1872.

(5.) Sarcoma in the Trachea; sudden death from spasm of the glottis, after the injection of two or three drops of a solution of chloride of iron. Coën. *Wiener Medicinische Presse*, 52, 1872.

(1.) FIEBER recommends electrolysis for the treatment of growths in the larynx, and, after describing the method of using it, gives six cases in which he employed it, with good immediate result; but as to the pathological nature of most of the swellings, no information is offered, except in one case, one of cancer, where, after temporary subsidence, it disappeared.

(4.) Mr. THORNTON's first case of thyrotomy was that of a man aged 24, whose voice became slightly hoarse in December, 1868, and in the following month aphonic. Three years later, he came under Dr. Morell Mackenzie's care, his voice being almost suppressed and his breathing affected. With the laryngoscope, great thickening of the left ary-epiglottic fold and slight ulceration of the left ventricular band were seen. Lungs healthy. At the beginning of 1872, Dr. Mackenzie found the whole of the larynx covered with large vegetations. He was wearing a tracheal canula, put in six months previously in Halifax, on account of dyspnoea. Thyrotomy was performed by Mr. Thornton. Growths were found attached to all parts of the laryngeal mucous membrane; and were removed with cutting forceps, and nitrate of silver applied to their bases. The left ary-epiglottic fold was seen to be much thickened. The canula was not returned until the second day after the operation, when it had to be replaced on account of the difficulty of breathing. Microscopic examination showed the growths to be of an epitheliomatous character. Six weeks after the operation, dysphagia came on; and, two months later, examination showed displacement of the arytenoid cartilages, and it was evident that perichondritis had taken place. From this time, the difficulty in swallowing rapidly increased; for two months he was fed through an œsophageal bougie, and died at the end of the year. No post-mortem examination was allowed.

The second case was that of a boy two years and a half old, who was admitted to the Hospital for Diseases of the Throat, June 11, 1872, suffering from stridulous breathing and some lividity of the face. It was said that, from his birth, his cry had been weaker and harsher than that of other children, and that, after an attack of croup at two years of age, his voice was much harsher, and his breathing slightly stridulous. At the time of his admission, his respiration was so oppressed that he could not walk across the room, and it was difficult for him to obtain sleep. Dr. Semple discovered warty growths on both vocal cords. Five days after admission, on a sudden increase of dyspnoea, tracheotomy was performed by Mr. Thornton, and, two days later, at Dr. Semple's request, having removed the canula, he carried the incision up through the cricoid and thyroid cartilages. Warty growths were removed in the same manner as in the first case, from both vocal cords, and from the mucous membrane below the right vocal cord, and the parts brought together by silver sutures, the tracheal canula not being replaced. The child passed a good night, and slept with his head low. A month after operation, his voice was tried, and found harsh

and feeble; his breathing was normal. He was soon after made an out-patient. On December 13th, his breathing became slightly stridulous, and, on January 10th, tracheotomy had to be performed a second time. Mr. Thornton remarked that there was no doubt that recurrence of the growths had taken place, although from the child being frightened from previous operative measures it was impossible to make a laryngoscopic examination. He also remarked upon the difficulty of effecting complete removal by thyrotomy. The author observed that he should not recommend the operation in a case like the first, which was undoubtedly one of cancer. In this instance, it was undertaken on account of the aphonia making it impossible for the patient to gain his livelihood.

In speaking of the second, Mr. Thornton thought the operation more justifiable, the tender age of the patient having rendered laryngoscopic treatment impossible.

(5.) Dr. COËN, in a letter to the editor of the *Wiener Medicinische Presse*, gives the facts in regard to a most unfortunate case. A woman, twenty-three years of age, came to the Polyclinic in Vienna to be treated for excessive dyspnoea, which had been increasing for three years. Laryngoscopic examination showed a tumor, which was situated on the right posterior wall of the trachea, in the neighborhood of the cricoid cartilage, of hard consistence, and not movable by respiration. The diagnosis of a sarcoma of the trachea was made, and Dr. Coën proposed to remove it in the same way as Schmidt had done in a similar case, i. e., by the injection of a solution of chloride of iron into the tumor by a syringe constructed for the purpose. After several weeks' exercise of the patient, Dr. Coën one day, when she was breathing in an exceptionally quiet manner, and had urged him to operate, "injected two or three drops of chloride of iron." Immediately, spasm of the glottis ensued, and in a few moments the patient died. Dr. Winiwarter was called to perform tracheotomy, which naturally was done too late.

Under Dr. Coën's letter, is a note from the editor, Dr. Schnitzler, in which he says that the legal autopsy made by Rokitansky confirmed the diagnosis of "sarcoma of the trachea"; that furthermore, the autopsy, and the facts stated above by Dr. Coën, most of which he personally could verify, showed that the operation was done according to all rules of the art, although not only the neoplasm, but also the surrounding mucous membrane of the larynx and trachea were hit by the solution of the chloride of iron; that evidently an unexpected irritation of the injected fluid had produced a severe spasm, which, in conjunction with the tumor below the glottis, caused the sad end.

[We do not know that legally every practitioner in Austria has a right to perform surgical operations, but it seems as if any one, if not a physician even, would be justified in such a case in plunging a knife into the trachea. It seems to us as if the patient's life was lost by sending out for a surgeon to do tracheotomy.]

PARALYSIS.

- (1.) Lähmung beider Accessorii Willisii. Seeligmüller. *Archiv für Psychiatrie*, III., 2. (*Berliner Klinische Wochenschrift*, Oct. 14, 1872.)
- (2.) Stimmbandlähmung. Dr. H. Bose. *Archiv für Klinische Chirurgie*, 1872, xiii. Bd., 2 Heft. (*Vierteljahrsschrift für die Praktische Heilkunde*, xxix. Jahrgang, 1872, Bd. 3.)

(3.) Laryngoscopic Observations on a Cat, after Section of the Right Recurrent Nerve; see (3) under "Laryngoscopy" in this report.

(4.) Laryngeale Paralyse nach Pocken. Dr. Breganze. (Mailand.) (*Gazetta Med. Ital.*, 16 November, 1872.) (*Allgemeine Medicinische Central-Zeitung*, 7 December, 1872.)

(5.) Heilung einer hysterischen Aphonie durch einmalige Electrizarung. Petrilli. (*Il Morgagni. L'Ippocratico*, No. 21, 1872.) (*Allgemeine Medicinische Central-Zeitung*, Dec. 14, 1872.)

(6.) Ueber die Lähmung der Glottiserweiterer. Dr. Franz Riegel. Würzburg. (*Berliner Klinische Wochenschrift*, Feb. 17, 1873.)

(1.) SEELIGMUELLER describes, as one of paralysis of both spinal accessory nerves, the case of a girl, twenty-four years of age, who, years before, had begun to have difficulty in swallowing, and who presented symptoms of paralysis of the soft palate and larynx; there was also increased frequency of the pulse, paralysis and considerable atrophy of both sterno-cleido-mastoidei and trapezii muscles. There was also atrophy and a weakness, resembling paralysis, in the upper extremities, especially in the left. This pathological condition corresponds to the anatomical result which Burchard has obtained with reference to the course of the fibres of the inner branch of the accessory after its union with the vagus, viz., that the N. pharyngeus contains, almost exclusively, the N. laryng. sup. few, and the N. laryng. inf. and the cardiac branch exclusively, fibres from the accessory. The disease, in this case of Seeligmüller, seems to have commenced in the region of the inner branches of the accessory, and to have extended slowly downward, affecting, finally, the motor nerves of the arms.

(2.) BOSE divides paralyses of the vocal cords into three principal groups. 1. Paralysis of the recurrent laryngeal nerve. 2. Paralysis of the glottis-openers. 3. Paralysis of the glottis-closers. He considers especially the last group. Hysteria and taking cold are the principal causes. After taking cold, either the paralysis is the only consequence, or it occurs at the same time with a catarrhal inflammation, in which case the laryngoscope shows that the paralysis is not dependent on the intensity of the inflammation. The two affections stand only so far in relation, as that they owe their origin to the same cause. In complete paralysis of the glottis-closers, the vocal cords remain immovable in the respiratory position. In incomplete paralysis, there is a slight convulsive movement of the cords without approximation; or they separate immediately after approximation; or the closure is incomplete, so that a triangular space remains. The lowest grade of partial paralysis consists in a certain sluggishness of movement.

The consequence of this form of paralysis is usually complete aphonia, so that the patients can only speak in a whisper, as with paralysis of the glottis-closers paralysis of the tensors of the cords is usually combined. When this is not the case, the voice is more or less hoarse, but only fails entirely in very high and falsetto notes. In other cases the regularity of the vibrations is hardly interfered with, the clearness of the tone is almost normal, and the patients complain only that speaking requires unusual exertion. In paralysis of the tensors alone, the cords are approximated, but do not vibrate, and the patients are absolutely aphonic. Bose presumes that, in this case, there is paralysis of the crico-thyroid muscles, in support of which supposition ob-

servations on patients and the successful application of electricity in the region of the superior laryngeal nerve seem to speak; yet he was not successful in confirming this view by experiment.

He believes that these cases must be looked upon as a kind of partial paralysis, in which the patients complain of having lost the power of producing a certain number of high notes, and in which, on examination, nothing abnormal is seen by means of the laryngoscope, and in which the full compass of the voice is restored by the application of electricity.

The lowest grade of partial paralysis, according to Bose, corresponds to the condition which Gerhardt calls atony; the movements are accomplished, but not with their normal quickness, and often by jerks; in speaking, now and then a tone is heard; most words, however, are lost, yet single notes by themselves can be sung aloud. Bose criticizes the forms of paralysis of single muscles described by Türck, which he does not think to be sufficiently well grounded, and proceeds to speak of the different character of the cough in respiratory and phonic paralysis. He considers that an independent muscular system exists for closing the ventricular bands, and that this alone, without the aid of the muscles of the vocal cords, can produce a complete closure of the glottis; that in phonic paralysis, only the muscles of the glottis are paralyzed, but in respiratory paralysis, the muscles of the ventricular band also. On such a theory the peculiarity can perhaps be explained that in phonic paralysis, with complete loss of voice, the cough still has tone.

The results of Bose's examinations and observations are given, at the end, as follows:—Those paralysees of the vocal cords, which are designated as paralysees of the glottis-closers, are divided into two chief forms, the one of which is characterized by this, that on attempt at phonation the glottis remains open; the other by a want of vibration of the vocal cords. Both forms are usually combined, and may occur in varying intensity, and the lowest grade of partial paralysis corresponds to the atony of Gerhardt. Besides the muscles which move the vocal cords, there is in the larynx a second muscular system, which serves to close the ventricular bands. Paralysis of the vocal cords may be accompanied by a paralysis of the ventricular bands, and it is the rule that, in paralysis of the recurrent nerve, the ventricular band is also paralyzed; if, on the contrary, there is paralysis of the glottis-closer, it usually exists by itself, and is only exceptionally accompanied by a paralysis of the ventricular band. When paralysis of the vocal cords and ventricular bands occur together, the explosive sound is wanting in the cough. When, on the contrary, the vocal cords are paralyzed, but the ventricular bands are not, the cough may even be accompanied by a loud tone. We sometimes see, in such cases, on attempted phonation, instead of the closure of the vocal cords which are paralyzed, the closure of the ventricular bands which are not paralyzed. The paralysis of the ventricular band does not occur exclusively in connection with paralysis of the vocal cords, but the case may also occur, where only the ventricular bands are paralyzed, and the vocal cords possess their normal movability; the patient suffers then from the so-called barking, hysterical cough.

(4.) Dr. BREGANZE reports a case in which loss of the power both of articulation and phonation came on after acute cerebral symptoms in

smallpox. Recovery ensued under a few applications of electricity, which Dr. Breganze considers as rather a coincidence than cause and effect.

(6.) An abstract was given, in our last report, of a paper published by Dr. Riegel in the *Berliner Klinische Wochenschrift* for May 13th and 20th, 1872, on paralysis of both posterior crico-arytenoid muscles, including the report of a case of this affection in a child of six years, occurring in his own practice, in which tracheotomy was necessary. In the present article, he gives the continuation of this case till death, and then gives an account of the autopsy. The immediate cause of death was an attack of measles. At the autopsy, there was found bronchiectasis of both lungs, especially of the right; both recurrent nerves were imbedded in firm, contracted connective tissue, the right between the apex of the lung and the subclavian artery, the left on the posterior surface of the arch of the aorta. Everywhere throughout the course of both nerves were found atrophied, degenerated nerve fibres, and, at the same time, always some which were perfectly intact. Both posterior crico-arytenoid muscles were found to be atrophied, but the most careful examination of the other muscles of the larynx failed to show the least change. Thus the diagnosis made by Riegel was exactly confirmed. Riegel remarks that this is the first case in which a simple paralysis of the muscles of the larynx has necessitated tracheotomy, but in Mackenzie's case,* and in both of the cases reported by the author, this operation was performed.†

BRONCHOCELE.

(1.) Beitrag zur Heilung des Kropfs, von Dr. Francesco Parona. (Successful treatment by the injection of the mineral water of Salsomaggiore.) *Deutsche Klinik*, 1872, No. 41, u. 42, *Virchow's Archiv*, 1872.

(2.) Observations on Goitre. By Geo. H. Savage, M.D. *London Lancet*, July 20, 1872.

(3.) Heilung eines Cysten-Knotenkrebses durch Erregung einer chronischen Entzündung mit Eiterung in der Cyste. Dr. Bauer. *Wiener Medicinische Presse*, Sept. 29, 1872.

(4.) Weitere Beiträge zur Pathologie und Elektrotherapie der Basedow'schen Krankheit. Chvostek. *Wiener Medicinische Presse*, Nos. 23, 27, 32, 39, &c., xiii. Jahrgang, 1872.

(5.) Bronchocele giving rise to dyspnoea; tracheotomy; subsequent death from phthisis; trachea compressed by the enlarged thyroid body. Jessop. *British Medical Journal*, Nov. 2, 1872.

(6.) Beiträge zur Heilung des Parenchym- und Cystenkrebses. Von Dr. Karl Störk. *Wiener Medicinische Wochenschrift*, Jan. 25, Feb. 1.

(2.) Dr. SAVAGE gives statistics in reference to the prevalence of goitre in the village of Nent Head, Cumberland. He left forms at the houses, and obtained returns from 829 persons; of these 181 confessed to goitre, of whom 58 were men, and 123 were women. Of 234 school children carefully examined by Dr. Savage himself, 168 were found to be goitrous.

LARYNGEAL ULCERATION.

(1.) Das tuberkulöse Geschwür im Kehlkopfe. Walhberg. *Wiener Medicinische Jahrbuch*, 1872, iii. Heft.

* Hoarseness, Loss of Voice, and Stridulous Breathing, &c. London, 1868, p. 34.

† This JOURNAL, Feb. 25th and Sept. 30th, 1869.

(2.) A Case of Phthisis Pulmonalis, accompanied by Ulceration of the Larynx and Plastic Exudation into the Trachea and Bronchi. Philipson. June 22, 1872.

ŒSOPHAGUS.

(1.) On Syphilitic Constriction of the Œsophagus and Pharynx. James F. West, F.R.C.S. *Lancet*, Aug. 31, 1872.

INJURIES.

(1.) Fracture of the Trachea. (*British Medical Journal*, Dec. 28th, 1872.) A middle-aged woman fell from a broken chair, and struck the trachea against an upright spindle; there was expectoration of blood and extreme general emphysema. Recovery in about ten days.

PHYSIOLOGY.

Der Musculus Cricothyreoideus. Dr. Jelenffy, in Pesth. *Archiv für gesammte Physiologie*. Bd. 7, Heft I.

(To be concluded.)

OBSTINATE INTERCOSTAL NEURALGIA OF THREE YEARS' STANDING, FOLLOWING A SEVERE ATTACK OF HERPES ZOSTER—CURED BY HYPODERMIC INJECTIONS. Reported by Mr. J. C. CAMERON.—A. F., aged 70, married, was admitted into the Montreal General Hospital on the 26th September, 1872, suffering from severe paroxysmal pain in the left side. She states that *three years ago* last March she was suddenly seized with severe shooting pains in the left side, followed, in two or three days, by the appearance of many small blisters, looking, as she says, "as if it had been *burnt*." The part thus affected subsequently remained ulcerated and sore for a length of time, but finally healed, but the pain which had accompanied it throughout remained, and, indeed, she has never been entirely free from pain in the part since the first commencement of the attack, and latterly this pain has been becoming more severe. The pain is now evidently neuralgic, occurring in violent paroxysms, and following apparently the course of the seventh and eighth intercostal nerves. It is darting and stabbing in its character, and the usual anterior, posterior, and mid-lateral *tender points* are extremely well marked. There are to be seen, surrounding the left half of the chest, just below the mammary gland, a series of cicatricial patches, varying in size from half the palm of one's hand, to that of a quarter of a dollar, white and glistening in appearance, and which at first were naturally taken for the scar of a burn, until the previous history just related was known, and it was found that the cicatrices extended exactly from the sternum to the vertebræ round one side of the body.

Ordered cod-liver oil, and to have a hypodermic injection of one quarter of a grain of muriate of morphia every night.

It is unnecessary to give a detailed report of this case. Relief to the pain was immediate; the tenderness of the "points" soon became much less, and she slept soundly at last without the morphia. Discharged cured, for the time at any rate, on the 28th October, 1872, after just one month's treatment.

This case is an example of the extreme severity of some of the neuralgias, which are found to be accompanied by herpes zoster; also, of the extent to which the latter may lead to ulcerative destruction of the skin, and the obstinacy and persistence of the subsequent painful affection.—*Canada Medical and Surgical Journal*.

Bibliographical Notices.

Defence of Insanity in Criminal Cases. Argument of HENRY L. CLINTON, of New York. Delivered April 15th, 1873, before the Judiciary Committee of the Senate, in favor of a Bill drafted by him which had passed the Assembly. New York. 1873. Pp. 41.

This bill provides that, if the jury acquit in capital cases on the ground of insanity, the person acquitted "shall be confined in one of the State Lunatic Asylums, or in the State Asylum for Insane Criminals at Auburn, for a period not less than fifteen years, and until it shall be proved, in the manner provided by law, that the defendant has been restored to sanity." To prevent injustice in individual cases, the third section gives the governor power to discharge any person confined under this act, "if in his opinion justice shall require it."

It would be a waste of time to analyze the long and able special pleading of this writer. Nobody expects judicial fairness, scientific accuracy, or even respect for the honest opinions of others, from a lawyer advocating a bill. There is, of course, abuse of experts, at whose head he puts Dr. Ray, as having carried the modern "doctrine of insanity to ridiculous and absurd lengths"; there is an ungrateful rejection of impulsive, emotional, moral, and all partial insanities, as of too suspicious character to be of much account, and a renewed assertion of the complete availability and sufficiency of the legal tests of "delusion" and "knowledge of right and wrong." He claims, further, that if partial insanity must be admitted in defence of crime, it must be shown by the evidence:—

1st. That if the defendant labored under a delusion, the act in question was the direct result—the immediate offspring of that delusion or partial insanity.

That is to say (it being unnecessary, as he elsewhere affirms, to prove any motive), no delusion, however stupendous, shall afford any excuse for crime, unless its subtle relations to that crime can be plainly shown!

2d. That the facts and circumstances which the defendant believed to exist (but which were untrue) would, if true, in law, have justified the defendant in the commission of the act for which he is on trial.

That is to say, if a mother has a delusion that her only child is dying of cold and starvation, and kills him, she is guilty of murder, because the delusion, if true, could, in law, be no justification for the act!

3d. That, with reference to such act, the defendant did not know right from wrong.

When? Just before or just after? Wrong for another or wrong for him? Human or moral, or only unlawful? Wrong in the abstract, or justified by the circumstances? These questions are, I suppose, too subtle to enter into a legal test, and yet the whole question of real responsibility rests on them.

Instead of quoting Dr. Ray, who, of course, can know nothing of the workings of the insane mind, as seen from the standpoint of the criminal law, let us refer to certain judicial opinions, as set forth in *State vs. Jones*, a pamphlet published at Andover, New Hampshire, August, 1872.

The first point in this report of interest to the medical reader is the recognition by the court of those forms of insanity which alienists have often insisted on, but which the law, reflecting popular rather than scientific opinion, has been slow to recognize. The possibility of the special or predominating disorder of each of the grand divisions of mind, the intellect, the emotions and the will, is distinctly admitted. Partial insanity, insanity without delusion, moral or emotional insanity, and irresistible insane impulse, are all admitted by inference, if not in so many terms.

The next point is the authoritative opinion of the court, sustained by a careful review of English and American precedents from 1723 to the present time, and supported by the able argument of the Attorney General, and a previous decision of Judge Doe, *that there is no well defined and uniform legal test of insanity.*

The chief interest in this case, however, centres in the ingenious method by which Judge Doe, following Judge Perley, avoids the necessity of eliciting a rule of law for the guidance of the jury, where rule there is none, by transferring the whole question of insanity from the domain of law to that of fact, where it really belongs. The expert, in examining a case of suspected insanity, relies on no test, medical or legal. The disease is to him a matter of observed fact. If he applies legal tests, it is only because he expects to find them applied by the court. Models of thought, expression of feeling, and the patient's acts—as related to underlying physical conditions—are the *facts* upon which the physician bases his opinion, and in the absence of any test, medical or legal, it is surely better to let them go to the jury directly for what they are worth.

The opinions in *State vs. Jones* will, at least, establish this fact, that legal and judicial authorities disagree as radically and frequently as medical authorities, and that the writer of the argument for the New York bill has gone out of his way to abuse and cheapen medical experts and their opinions. As to his bill itself, he would probably find most medical experts substantially in favor of it. The confinement for a long period of an insane criminal in some suitable hospital would meet universal approval from medical men, and the power to discharge might very properly be vested in the governor, who would, on petition, order a careful investigation in each case, calling in, no doubt, that same kind of testimony which the author of this bill so much undervalues.

T. W. F.

Wöhler's Outlines of Organic Chemistry. By RUDOLPH FITTIG, Ph.D., Nat.Sc.D., Professor of Chemistry in the University of Tübingen. Translated from the Eighth German Edition, with additions, by IRA REMSEN, M.D., Ph.D., Professor of Chemistry and Physics in Williams College, Mass. Philadelphia: Henry C. Lea. 1873. Pp. 530.

The fact that the original of this work is used extensively in Germany as a text-book on organic chemistry, and has rapidly passed through eight editions, attests its value. The introductory chapter upon the "constitution of chemical compounds" renders it especially valuable to the beginner, as well as the simplicity of the classification adopted, the hydrocarbons having been taken as the starting point in the consideration of all the other groups of substances. In the case

of those substances whose exact constitution, or position among the classified compounds, is not as yet known, such as many of the vegetable alkaloids, a concise and yet sufficient description of their appearance and chemical properties is given.

Scarcely more than a mere allusion, however, is made to those substances, especially important in the study of physiological chemistry. For instance, the biliary constituents are disposed of in seven pages, the protein in eight, and the last chapter, on "Animal Chemistry," occupies but thirty pages; and yet treats, or pretends to treat, of the chemistry of the blood, chyle, lymph, saliva, gastric juice, bile, skin and its secretions, horny tissue, muscles, bones, tissues yielding gelatine, fat, mucus, transudates of serous membranes, eye, nervous system, egg, semen, milk, urine and excrements.

Aside from these three chapters, the subjects of which are much better left for special treatises on physiological chemistry, the book is admirably adapted to the object for which it is intended, namely, as a book "for reference in connection with laboratory work," an object favored by the conciseness and brevity of the descriptions, the author having been guided by this principle, mentioned in the preface of the seventh edition, namely, "of every homologous series, that compound which is most thoroughly investigated, and which may be considered as a type of the whole series (as, for instance, ethyl alcohol in the series of saturated, monatomic alcohols, and acetic acid in the fatty acid series), is, with its derivatives, considered very extensively; while, for the other numbers of the same series, only the physical properties of the more important ones are briefly stated, and their characteristic derivatives mentioned."

Dr. Remsen has conferred a great favor upon the scientific public in this country in giving to it this translation, which supplies fully the want of a text-book for the use of students in the laboratory and in connection with lectures on organic chemistry, and by his own additions in bringing the book up to the standpoint of the present time.

E. S. W.

Leitfaden bei der Mikroskopischen Untersuchung Thierischer Gewebe.

Von Dr. SIGMUND EXNER.

A Guide to the Microscopical Examination of the Animal Tissues. By Dr. SIGMUND EXNER. Leipzig: W. Engelmann. 1873. Pp. 93.

This small volume will be of great service to those who are doing real work with the microscope. Unlike Frey's and Beale's works, it does not give even the faintest outlines of histology, but teaches merely how to work. It gives clear directions for hardening and cutting the tissues and for coloring and mounting the sections. The information concerning injections is very good for due attention it gives to many points of detail, which are apt to be neglected, but which are essential to success. The art of staining with two colors is making progress; there are directions for using aniline blue, chloride of palladium and picric acid in conjunction with carmine; also for treating the cornea with chloride of gold and nitrate of silver successively. The author speaks of the danger of deception from the curious accidental effects that silver occasionally produces. He considers this reagent so unreliable, that he would accept nothing which it shows which cannot be made visible by other means, and,

later, he says that the same remarks apply to gold. We think that the latter metal is far more reliable than silver, but if the author errs, it is on the safe side. The arrangement of the book is not quite as good as it might be, and there is one omission: the methods of studying and experimenting on the circulation in the living animal are entirely ignored. The work is the result of the training which special students receive in the best laboratories in Germany. Little time is wasted there on diatomes, test lines and complicated appliances; the study of structure is kept steadily in view. We should like to see this book translated into English, believing that it would be of great service in medical education.

D.

BOOKS AND PAMPHLETS RECEIVED.

Civil Malpractice. A Report presented to the Military Tract Medical Society. By M. A. McClelland, M.D. Chicago: W. B. Keen, Cook & Co. 1873. Pp. 74. Price \$2.00.

The Geology of the Stars. By Prof. O. Winchell. (Half Hour Recreations in Popular Science.) Boston: Estes & Lauriat. P. 31.

Conium in the Treatment of Insanity. By Daniel H. Kitchen, M.D. From the American Journal of Insanity for April, 1873. Pp. 24.

Medical Education; what it is and what it might be made. An Address before the Society of the Alumni of the Medical Department of the University of Pennsylvania, March 12th, 1873. By Alfred Stillé, M.D. Pp. 34.

Ovariectomy, By J. Marion Sims, M.D. Re-printed from the New York Medical Journal. New York. 1873. Pp. 85.

TREATMENT OF FISSURES OF THE NIPPLE.—In a paper by Dr. Créquey, fissures of the nipple are described as being of two kinds. First, those produced by the violent suction on the part of the child; here the epidermis is raised and abraded, as if by a cupping-glass. In this condition of the nipple, the child should be allowed to suckle only when the breast is charged with milk. Second, at other times, a little of the milk lodges in the minute cracks at the base of the nipple, where it comes in contact with the secretions of the body and rapidly decomposes, thus acting as an active irritant of the skin, and in some instances inducing very extensive inflammation. As a preventive of cracked nipples, originating in this manner, the breast should be bathed with warm water, wiped dry, and then anointed with the following ointment:—

R. Tannin, 1 gramme;
Glycerine, 10 grammes.

This should be applied by means of a camel's hair brush, after which the nipple should be protected with charpie, or a soft linen cloth. In these cases, the nipple-shield may be employed to advantage.

If the breast be distended with milk, relief may be afforded by the application of a large, flax-seed poultice, taking the precaution to protect the nipple with a piece of soft leather.—*Gaz. des Hôp.*, 1873, p. 84.

Boston Medical and Surgical Journal.

BOSTON: THURSDAY, MAY 15, 1873.

THE opportunity offered by the prevailing epidemic of cerebro-spinal meningitis for original investigation concerning its etiology and epidemic character is not lost on the State Board of Health. The following notice intimates that a good use will be made of the facts which every day's medical observation in the cities and towns of the State is accumulating with regard to this disease; and we gladly promulgate the subjoined request to medical men, in the anticipation that the next annual report of the Board will shed much light on a subject of such importance.

To Correspondents of the State Board of Health in the Cities and Towns of Massachusetts.

It is proposed to make as complete an investigation as possible of the epidemic of cerebro-spinal meningitis now prevailing, for publication in the next annual report.

For this purpose the correspondents of the Board are requested to collect all facts bearing upon the subject, and especially those relating even remotely to the supposed origin of the disease, in anticipation of a circular which they will receive at a later period.

This special inquiry will be conducted by a physician of Boston, who is well known to the profession in connection with the previous history of the disease in the United States.

In behalf the State Board of Health of Massachusetts,

GEORGE DERBY, M.D., *Secretary.*

Boston, May 5, 1873.

A NEW METHOD OF PRODUCING LOCAL ANÆSTHESIA.—The interest that has been recently manifested in the profession on the subject of anæsthetics, induces us to take an early opportunity of directing our readers to an important paper, by A. Horvath, of Kieff, published in the *Centralblatt für die Medicinischen Wissenschaften*, proposing a new method of producing local anæsthesia. It is a well-known fact, that if the hand be immersed for a short time in ice-water, an intolerable pain is caused, and the hand has to be withdrawn. In the course of a series of experiments, made in reducing the temperature of frogs by means of cold alcohol, Dr. Horvath observed that no such pain was produced when the hand was immersed in cold alcohol, not even when the temperature of the alcohol was as low as -5° C. Pursuing the experiment still further, glycerine was found to possess a property similar in this respect to alcohol. Ether, on the other hand, caused pain, the same as ice-water, while the pain produced by cold quicksilver was more acute, causing the speedy withdrawal of the finger when plunged into this liquid at a temperature of -3° . It was next ascertained that, when

the finger was held for quite a long time in alcohol having a temperature of -5° C., no pain whatever was experienced, and what was a still more remarkable phenomenon, although the faintest touch was distinctly perceived in this finger, yet no pain whatever was experienced from sharp pricks, which in other fingers were sufficient to cause considerable pain. This experiment seemed to show that the application of cold alcohol has the effect of depriving the part of the special sensibility to pain, without, however, impairing the delicacy of the general tactile sensation, which, as is well known, resides in the superficial integument. This apparent possibility of the artificial separation of these two nervous functions, viz., the tactile sensation, and the sensation of pain, and the temporary suspension of the latter, seemed important in a physiological point of view, and also of no small practical utility in allaying certain forms of local pain, more especially that caused by burns, and surgical operations. With regard to burns, Dr. Horvath soon had an opportunity of testing the value of this application on his own person, as well as upon others, and with the most satisfactory results. Not only was all pain instantly allayed, directly the part was immersed in alcohol, but it was found that the wound very speedily began to assume a more healthy appearance, the surrounding redness rapidly failing. The process of healing seemed also to be accelerated. If that theory is a correct one which ascribes the frequent fatal termination of burns to the result of the constitutional shock induced by the severity of the pain, in that case the application of cold alcohol, in that it affords the patient an immediate relief from his sufferings, will prove a powerful agent in such accidents in saving life. In like manner, this same application may be found valuable, it is thought, in cases of traumatic tetanus. The method of producing local anæsthesia by the aid of ice, ether and rhigolene has been perfectly understood for many years. These agents have never been extensively employed, however, inasmuch as it has been found by experience that the process of freezing the part is often productive of quite as serious pain as would have been experienced from the operation without the administration of any anæsthetic. The ether spray is found to be a source of embarrassment to the operator, for, if not carefully directed, it is liable to take effect upon his own fingers, bringing on a sudden numbness, which is more surprising than gratifying. It can, moreover, be applied to only a limited extent of surface at a time.

The extreme simplicity of this new anæsthetic, the ease with which it can be applied to any part of the body where pain is experienced, or when it is desired to make an incision—all these circumstances tend to make it highly probable that its employment will ultimately become general, thereby doing away, in a great measure, with the disagreeable and dangerous effects of ether and chloroform.

RESECTION OF THE HIP-JOINT.—The second volume of a work on this subject, by Dr. E. v. Wahl, has just been issued from the press, an abstract of which appears in the *Deutsche Klinik* (No. 45). The operation for the removal of the head of the femur is one of comparatively recent adoption, having been first successfully performed by White in the year 1818. As in the case of ovariectomy, and other of the more modern operations, the rate of mortality is found to decrease in direct

proportion to the frequency with which the operation is resorted to, so that we are not yet in a position to predict how large a percentage of favorable results may eventually be hoped for.

Dr. Heyfelder, in the year 1858, collated fifty-six cases of resection of the hip-joint, the result of which was as follows :—recovered twenty-six, fatal twenty-three. In seven cases, the result was not ascertained.

Price collected fifty-nine cases, of which thirty-three recovered, twenty-five proved fatal—fourteen succumbing immediately after the operation, and the remaining eleven within a period varying from three months to two years. The result of one was not learned, so that the rate of mortality was twenty-three per cent.

Pirrie collected seventy cases, of which twenty-five were unsuccessful, the percentage of fatal results being, therefore, thirty-five.

Sayre has reported the details of thirty operations, of which ten were followed by death. At a later date (1866), the same writer published one hundred and nine cases in which the operation was performed on account of chronic disease of the joint; and of these, thirty-six proved fatal, the rate of mortality in each series being one-third.

Hodges, in a monograph on this subject, gives the details of one hundred and eleven cases, of which forty-six resulted favorably, fifty-three proved fatal, while the result in two cases was unfavorable, that is, the patient recovered with a useless limb.

Butcher reported fifty-eight cases in the year 1866, gathered from the London hospitals, of which nine resulted fatally.

Good makes a comparative review of twenty cases of exarticulation, and thirteen of resection, of the hip-joint, performed on account of gun-shot injuries. Of the former, fifteen were fatal; of the latter, seven. In 1869, the same author compared the results of the operation in England and France, when performed on account of caries, and found that, in England, out of thirty-two cases twenty-one recovered and eleven died; while in France, out of fourteen cases, two recovered and twelve died. Out of eleven cases reported in Philadelphia, there were four deaths.

Eulenberg has made a collection of fifty-six new cases, of which twenty-two recovered, three were not relieved, twenty-four died, while in the remaining seven cases the result was not known. Of these fatal cases, seven per cent. died within a month of the operation, and six per cent. within the first three days.

From the above brief review of the conclusions of different eminent surgeons, it will be seen that the statistics collected will bear a still further sifting; and it will be practically found that the two other factors furnish important data in enabling us to form a correct prognosis. These are : 1, the origin of the disease, whether traumatic or the result of caries; 2, the age of the patient. In reference to these points, the contribution of Dr. v. Wahl possesses special interest, as the author keeps constantly in mind the relation between the exact nature of the disease and the prognosis. He dwells, moreover, upon the fact that a resection of the hip-joint has a decided tendency to shorten the duration of suffering, which is often protracted to so long a period as to wear out the sufferer, so that the operation of resection is to be regarded as a method of securing *euthanasia*. The eight cases reported by Dr. v. Wahl are divided into three categories :—

I. Those performed at the most favorable time ; that is, at an early period of the disease.

II. Those postponed on account of uncertainty in the diagnosis, or misplaced confidence in some other palliative mode of treatment.

III. Operations performed to render approaching death painless.

I.

1. Boy, æt. 8; recovery in two and one-half months, with free motion.

2. Boy, æt. 4; recovery in eight months, with subsequent synostis.

3. Boy, æt. 2; death from tubercular meningitis, after sixty-six days. Operation performed seasonably.

II.

1. Girl, æt. 5; relieved at the end of six months, with formation of sinus, the seat of a purulent discharge.

2. Boy, æt. 6. At the end of a year, still confined to bed. Prognosis unfavorable.

3. Boy, æt. 4. Death from serous effusion into the brain. Purulent degeneration of the psoas muscle.

III.

1. Boy, æt. 7½. Death from tubercular meningitis at the end of fifty-three days. Purulent infiltration of the retro-perineal lymphatic gland.

2. Girl, æt. 7. Operation followed by relief, but death took place from exhaustion, at the end of thirty-six days.

As the result, then, of these eight cases, two were cured, two were relieved, and four died. Of the latter, death in one instance was not directly referable to the disease of the joint.

At the post-mortem examinations, it was demonstrated that, in some instances, the disease may be so extensive that no cure could reasonably be expected from any operation, however thorough; a remark which is especially applicable to those cases complicated with purulent degeneration of the psoas muscle.

As a rule, it is exceedingly difficult to determine the appropriate time for the performance of the operation for resection. The existence of abscesses and fistulous openings affords no proof of advanced caries of the joint, for even when these symptoms are present, recovery may take place without operative interference, more particularly when resort is had to permanent extension.

The only absolute indication of caries of the joint is the presence of crepitus; but where its existence is clearly made out, then the question arises whether or not the time for operation has been allowed to slip by. In case of *arthritis fungosa*, the crepitus may be completely concealed.

For this and similar reasons, the author advises seasonable operation, even at the risk of finding but slight pathological changes around the joint. The operation has not, on the whole, been attended by very brilliant results, so that it has already become unpopular with quite a number of surgeons, and it is, therefore, hardly to be expected that this advice with regard to early interference will be generally adopted.

The operation has been done five times at the Massachusetts General Hospital. The first time, Feb. 21, 1852—the operator, Dr. Bigelow—being the first time the operation was ever done in this country; the patient, a minor, æt. 11; the duration of disease uncertain, at least a year. Abscesses had formed around the joint; there was dislocation of the head of the femur, and the bone was found extensively diseased. The patient died March 3, 1852.

II. A minor, age not given. Operator, Dr. Parkman. Duration of disease, six months. Abscesses; dislocation of head of femur. Operation, Oct. 13, 1853; death, Sept. 8, 1854.

III. Minor, aged 9. Duration of disease, three years. Sinuses around the joint; dislocation of head of femur. Operator, Dr. Gay. Operation, Oct. 31, 1857; death, Nov. 15, 1857.

IV. The patient aged 25. Duration of disease, 2 years. Sinuses around the joint. Operator, Dr. Hodges. Operation, Aug. 30, 1869; the acetabulum found diseased. Nov. 14, 1869, the patient discharged, well.

V. The patient aged 27. Disease of one year's duration. Abscesses around the joint. Operated on by Dr. Cabot, Feb. 28, 1872; death, June 18, 1872.

In all these cases the disease was far advanced; in none was the origin traumatic, and none of the operations could be said to have been done at the most favorable time.

The fact that the only successful case was that of an adult, is noticeable.

During the five years ending 1869, excision of the head of the femur for coxalgia was performed eleven times at the Boston City Hospital. Two of the cases were adults, nine were children. Seven recovered, four died. Both the adults died. The ratio of mortality was 36 per cent.; excluding the adult cases, the mortality among the children was 22 per cent. In all the cases, the head of the femur was distinctly carious and the cartilage eroded; but the operation was not from choice delayed as a last resort till the final stage of the disease.

As regards the results in the above cases, they are tabulated as follows:—

None died from the direct effects of the operation.

Two died after operation, of tuberculosis.

One had a useless limb, like chronic hip disease.

Three had useful limbs, but with sinuses.

One had a good limb when he was lost sight of.

Two recovered completely.

Two adults died, one of Bright's disease and one from exhaustion.

In summing up the experience of the surgeons at the Boston City Hospital during the five years alluded to,* Dr. Cheever concludes as follows:—

"1. Hip-disease is far from always fatal.

"2. It is amenable to palliative treatment, if begun early.

"3. Excision, then, among the better classes of patients, should be practised sparingly and as a last resort. But—

"4. Among hospital cases, a different rule applies; and excision should be resorted to as soon as caries is certain, in order to give the patient a quicker recovery and a surer drainage when he leaves the hospital. And—

"5. The operation itself, as an operation, will be more successful if done early in the disease.

"In the child, excision of the hip is not a dangerous operation, . . . and the patient is better the day after the operation than he was the day before it."

* Med. and Surg. Reports, First Ser., 1869, Boston City Hospital.

UNIVERSITY OARS.—Under this heading, the *Medical Times and Gazette*, March 29, 1873, contains a notice of a book recently written by Dr. J. E. Morgan, of Manchester. In his work, the author has instituted a critical inquiry into the after-health of the men who rowed in the Oxford and Cambridge boat-races from the year 1829 to 1869.

For some time it has been questioned, particularly since Mr. Skey called attention to the matter, whether, interesting and exciting as the contest is, it does not endanger the health of the rowers to an unwarrantable extent. "Hypertrophied hearts, emphysematous lungs, and exhausted nervous systems are too great a price to pay, even for the best and purest of our public sports."

"But is the price to be paid? Dr. Morgan has pretty conclusively answered it in the negative. He has, with great care and trouble, obtained letters from 251 out of the 255 oarsmen, who, having rowed in the University races during the period over which his inquiry extended, were alive in 1869. . . . With regard to the effect of rowing on the expectation of life, he thus sums up his results:—'However severe be the standard of longevity which we require, my tables are still favorable to the rowers. Thus, for example, if, instead of adopting Dr. Farr's calculations, we take the tables of some of those insurance offices which profess to accept none but select lives, we still find the oarsmen living beyond those limits; and when, in addition to requiring this high rate of years, we become still more exacting, on the ground that nearly half of the rowers are clergymen (whose lives are somewhat better than those of less favored mortals), the grand results (in commercial parlance) still show a balance on the right side.' Of the 294 men who rowed in the twenty-six races which Dr. Morgan describes, thirty-nine are dead. Eleven of them died of fevers, six died from accidental causes, seven from consumption, two from other chest affections, three from heart disease, and the remaining ten from various other diseases. The lungs and heart are the organs which we all suppose suffer most in these aquatic struggles. Now, what is the fact? Of the total deaths among the oarsmen, 17 per cent. were due to consumption, and 5 per cent. to the remaining varieties of pulmonary affections. But the Registrar-General's reports show that over a period of seven years 28·9 per cent. of the deaths of males between the ages of 40 to 60 will be due to consumption, and 11·2 per cent. to other forms of chest disease. In the army, death from this class of affections is higher than amongst the civic population, and decidedly higher than amongst university oars. There were only three deaths from heart disease, almost too small a number to furnish grounds for deduction, but at least there is but little appreciable difference in the mortality observed amongst university oars and that which prevails amongst other classes of men at a corresponding period of life."

The Editorial further states:—"We have no hesitation in expressing our belief that for a large proportion of young Englishmen, rowing in college and university races is a capital training; it relieves the body of superfluous nervous energy, and braces both body and mind for the harder struggles of life. In proof of the good health which in a vast number of instances the oars have enjoyed, we might quote many a letter from Dr. Morgan's pages. The Bishop of Perth, a rower in the first race, now 63 years of age, writes that he can still skate and play cricket, and row as stroke in a four-oar eight miles on an occasion."

Bishop McDougal writes:—"I rowed in the Oxford and Cambridge Match of 1842, as bow. I believe that in my own case rowing has strengthened me to go through hard and trying work on the Equator for twenty years, and to be, as I am, the only survivor of all my contemporaries in it; but none of them were rowing men. I can pull a stout oar yet on our quiet Ouse, and hope, please God, to be able to do so for years to come."

The real question is not what becomes of the few picked men who row in the University crews, but what becomes of the many who try to get into them? The statistics in the above papers are taken from the successful class, not from the failures.

Eds.

Medical Miscellany.

THE first number of the *Obstetrical Journal of Great Britain and Ireland*, with an American Supplement, has just appeared. It is appropriately dedicated to Harvey, and bids fair to be a most excellent journal. The supplement is ably edited by Dr. W. F. Jenks, of Philadelphia.

THE following gentlemen have been elected Councillors of the Middlesex South District Medical Society:—

Drs. W. W. Wellington, J. C. Dorr, A. P. Hooker, Z. B. Adams, A. C. Webber, S. H. Hurd, H. Holmes, A. Hosmer, T. F. Robinson, G. F. Jelly, J. M. Bemis, R. L. Hodgdon, S. G. Burnap, J. L. Sullivan, W. B. Morris, H. C. Chapin, G. J. Townsend.

MATERIAL FOR HYPODERMIC INJECTIONS.—The aqueous solutions of the alkaloids are soon impaired by the growth of minute fungi on the surface. This is prevented by the addition of 20 per cent. of glycerin. Sulphuric acid is thought to be better than hydrochloric to facilitate the solution of the salts.—*Chicago Medical Examiner*.

IMPORTED TRICHINOSIS.—Dr. G. W. Focke, according to the *Berliner Klinische Wochenschrift* of April 21st, reports that a series of cases of trichinosis following the use of pork imported from North America, has been recently observed in Bremen. Twelve persons were infected by a gammon of bacon bought at auction; the younger, from ten to twelve years old, were least affected, while the adults suffered more severely. In course of time, more cases of disease, traceable to the use of other hams, were observed; and, at the time when the report was made, the number of persons suffering from trichinosis exceeded twenty. Living trichinæ were found in the specimens of meat examined. The process of smoking only kills the trichinæ in the more superficial parts of the meat, leaving their capsules easily recognizable; while in the interior the meat is almost raw and the trichinæ intact.—*British Medical Journal*.

THE *Missouri Dental Journal* is of "the opinion that the surgery in all places out of large cities will some day fall into the hands of dental practitioners—the only persons in small towns who are fitted, so far as the use of instruments are concerned, to perform surgical operations. Let the dentist only qualify himself, by attention to surgery, and these cases will of necessity fall into his hands. The common practising physician can never have practice enough in surgery to accustom himself to the use of instruments, and must ever remain as he now is, exceedingly awkward in performing all delicate operations."

Knowledge of medicine is more important than mere operative skill.

THE American Public Health Association closed its session, at Cincinnati, on May 3d. It will meet again on the second Wednesday in September next, at Providence, R.I.

A JUMP OFF LONDON BRIDGE.—The *Guy's Hospital Gazette* mentions that in No. 26, Clinical Ward, there is a case of pleurisy produced by a jump off London Bridge. The patient states that during the whole time of her fall and immersion she did not lose her senses, and, on admission, she inquired into what hospital she had been brought. She was in the water ten minutes.—*British Medical Journal*.

THE MARTYR TO THE VACCINATION LAWS.—Charles Frost, whose second indictment for refusing to have his child vaccinated has been pending for some time at Bow Street, was interceded for by a like-minded clergyman. The magistrate was privately informed by this champion that he ought to suffer death rather than inflict a fine. Mr. Flowers having demonstrated to Mr. Frost that smallpox hospital statistics were overwhelmingly against him, required him to pay 20s. and costs.—*Dublin Med. Press and Circular*.

NOTES AND QUERIES.

MESSES. EDITORS.—There has been, of late, considerable discussion concerning prescriptions, and I would take advantage of the present state of the public mind to ask a question of the profession. What is the apothecary to do when he believes the physician has made a mistake—especially a harmless one—as, for instance, that of ordering a solution of twice as much chlorate of potash as the water will take up? Shall he follow the law to the letter, or shall he make a saturated solution? PHARMACIST.

We are of opinion that the directions should be followed to the letter, unless there is reason to apprehend danger from so doing, in which case the physician should be consulted. We shall be happy to hear the opinions of others. EDS.

DIED,—In Portland, Me., May 9th, of pneumonia, Dr. Gilman Davies, aged 57.—In London, England, after a long and severe illness, Dr. H. Bence Jones, F.R.S.

MORTALITY IN MASSACHUSETTS.—Deaths in fifteen Cities and Towns for the week ending May 3, 1873.

Boston, 143—Charlestown, 5—Worcester, 14—Lowell, 20—Milford, 3—Salem, 12—Lawrence, 16—Springfield, 7—Lynn, 13—Taunton, 3—Newburyport, 6—Somerville, 3—Fall River, 11—Haverhill, 4—Holyoke, 7. Total, 287.

Prevalent Diseases.—Consumption, 50—cerebro-spinal disease, 23—pneumonia, 21—scarlet fever, 18.

Deaths from cerebro-spinal disease are reported as follows:—Boston twelve, Worcester, Lowell, Springfield and Lynn two each, Charlestown, Fall River and Haverhill one each. Deaths from smallpox are reported as follows: Boston, Worcester and Holyoke two each. Of the deaths from scarlet fever, fifteen occurred in Boston.

GEORGE DERBY, M.D.,
Secretary of the State Board of Health.

DEATHS IN BOSTON for the week ending Saturday, May 10th, 132. Males, 79; females, 53. Accident, 4—anaemia, 1—inflammation of the bowels, 2—bronchitis, 7—inflammation of the brain, 1—congestion of the brain, 1—disease of the brain, 4—cancer, 2—caries, 1—cerebro-spinal meningitis, 12—consumption, 29—convulsions, 1—croup, 2—debility, 1—diarrhoea, 1—diabetes, 1—dropsy, 2—dropsy of the brain, 1—diphtheria, 1—epilepsy, 2—erysipelas, 1—scarlet fever, 4—typhoid fever, 4—disease of the heart, 3—hemorrhage, 2—inanition, 1—intemperance, 2—disease of the kidneys, 4—disease of the liver, 1—congestion of the lungs, 1—inflammation of the lungs, 14—marasmus, 2—noma, 1—old age, 2—paralysis, 1—premature birth, 2—puerperal disease, 2—syphilis, 1—tabes mesenterica, 2—tumor, 1—unknown, 6.

Under 5 years of age, 38—between 5 and 20 years, 11—between 20 and 40 years, 39—between 40 and 60 years, 28—over 60 years, 16. Born in the United States, 86—Ireland, 29—other places, 17.